MERCER

STATE OF CONNECTICUT HOSPITAL PAYMENT MODERNIZATION ISSUE PAPER — DOCUMENTATION AND CODING IMPROVEMENTS

Issue Description:	As the State of Connecticut (State) transitions to the new All Patient Refined Diagnosis Related Groups (APR-DRG) payment methodology, the potential exists for improvements in claim documentation (for example, claim diagnosis and procedure coding) that will result in higher payments to providers than are anticipated from fiscal impact models. These coding improvements have been observed with changes to DRG-based reimbursement systems in other programs. These coding improvements place the State at risk of exceeding its projected budget, thus, exceeding its revenue neutrality commitment to individual hospitals.
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Background

The proposed APR-DRG methodology fiscal impact model is based upon claims data from 2012 which were paid on a per diem basis with an annual cost reconciliation. Under the current reimbursement system, detailed billing and coding of diagnoses and procedure codes is not relevant to reimbursement level. However, for an APR-DRG methodology, these billing and coding elements are essential for proper levels of reimbursement. It can be expected that when hospital reimbursement is dependent upon claim coding and documentation detail, hospitals will improve their claim documentation accuracy and completeness.

Therefore, as the State transitions to the new APR-DRG payment methodology, improvements in coding will likely result in higher payments than forecasted. These coding improvements are an anticipated result of the transition. This poses a financial risk to the state attempting to maintain a hospital revenue-neutral transition.

Considerations

Any potential solution to this issue must focus on project guidelines which include increasing accuracy, predictability, equity, timeliness, and transparency of hospital payments; providing consistency with industry standard payment practices and specifically Medicare payment policy, revenue neutrality by hospital, and be budget neutral. Additionally, the solution must be in accordance with the Centers for Medicare and Medicaid Services (CMS) mandate for economy, efficiency and access to care.

State and federal reimbursement system transitions to DRG systems show evidence of the payment increase as a result of this documentation and coding improvement (DCI). When

Medicare transitioned to the Medicare Severity DRG payment system, they identified a 5.8% increase over two years due to coding improvements unrelated to changes in patient acuity. The American Hospital Association disagreed with this assessment, but based on their own analysis they recognized an increase of 3.5%.[1] Elsewhere, the State of Pennsylvania's Medicaid payments increased 12% in the first year that the APR-DRG payment methodology was in place. In response, state Medicaid agencies in New York, Maryland, Virginia, Florida, and Arizona have adjusted rates or instituted policies to reduce the risk of payment increases that were expected as a result of coding improvements when transitioning to APR-DRG reimbursement systems.

One of the analytical challenges involved in identifying the source of observed increases in average severity of admissions (case-mix index) is the isolation of coding improvements from real acuity increases in those patient services provided. As treatment of low acuity inpatient services migrate to an outpatient setting, the average acuity of the remaining inpatient cases increases. This increase in acuity does not lead to an increase in overall payments since the migrating cases should be reimbursed at lower cost in an outpatient setting. Therefore, this "real" increase in patient acuity should not be offset.

Recommendation

Adjust base rates for all hospitals by an amount intended to anticipate improved documentation and coding on a statewide basis. In doing so, allow for a reasonable level of a practice pattern-based increase in real acuity. Consider the amount of the rate adjustment to be a reserve which would be returned to the hospitals in the event that observed coding improvements are less than expected. If case-mix increases are higher than anticipated, future rate reductions should be considered.

To develop an estimate for the "real" increase in acuity Mercer recommends relying on statistics from the Annual Report on the Financial Status of Connecticut's Short Term Acute Care Hospitals published by the State of Connecticut Department of Public Health, Office of Health Care Access. This annual report details the statewide case-mix index (CMI) for the acute care hospitals across all payers. Mercer recommends the all payer, all hospital basis for this statistic to assess the underlying changes in practice patterns. The project team received a question on this recommendation from the Connecticut Hospital Association, suggesting that using Medicaid only data for the measurement of real acuity change would be more accurate.

The choice of the statewide all payer, all hospital CMI increases was purposeful. It was intended to avoid any bias from changing enrollment or population average illness burden during the measurement period. The real acuity estimate attempts to capture an underlying change in the way care is delivered – for example more routine cases (that formerly required inpatient stays) being handled on an outpatient basis. Here is a small example:

	Year 1	**Year 2**
Population (members)	1,000	1,000
Total Cases	150	150
Average Acuity	1.000	1.000
Hospital Cases — Inpatient	150	144

[1] Documentation and Coding Factsheet, American Hospital Association 9/9/2013.

	Year 1	Year 2
Average Inpatient Acuity	1.0	1.010
Hospital Cases — Outpatient	0	6
Average Averted Acuity	na	0.7500

This example demonstrates that with the same required care, for the same population, for the same illnesses — but with some cases moving to an outpatient setting — that the subset of cases remaining in an inpatient setting have a higher average acuity (six lower acuity cases moved from inpatient to outpatient).

In order to test the premise at a high level, Mercer derived a rough estimate of statewide discharges per person (in all of the State). The data below seem to support the notion that there is a slight decrease in the incidence of inpatient stays, which (if one assumes a static or increasing burden of illness statewide) would support the premise that there is a system-wide change in practice patterns, resulting in fewer inpatient stays per person, and likely a higher acuity associated with those remaining inpatient stays.

Year	Statewide Discharges Per Person
2008	0.148
2009	0.149
2010	0.147
2011	0.147
2012	0.145

It is important to remember, that this calculation does not attempt to capture increases in the number of covered Medicaid beneficiaries (the APR-DRG system will pay for every additional person who requires hospitalization) nor the changing illness burden associated with adding new Medicaid populations or enrollees over time (the APR-DRG system is specifically designed to accurately pay for these types of changing profiles). Instead, the method attempts to estimate the extent which, *for a stable group*, practice pattern changes have an impact on the average acuity remaining in the inpatient setting.

Mercer did consider using Medicaid specific data for this derivation, but the growth in the population, and change in the population made this approach unworkable. Had the Medicaid population remained relatively unchanged during the time period from 2008 to 2012, it could have provided meaningful data to measure real acuity changes due to practice pattern changes. But because the Medicaid population increased by almost 50% during this time, the somewhat subtle changes in real acuity are likely to be dwarfed by the major changes in the size and average illness burden of the covered population. Because of the growth in covered members, it is impossible to discern whether the higher acuity demonstrated arises from the population change, or from changing patterns of practice.

Mercer also looked at Medicare data, as another example of a more stable population. Applying the same approach to deriving increases in real acuity, based on the Medicare population, using 2008–2011 data (2012 was not split by payer) produced a similar but slightly lower estimate for

the change in real acuity, of approximately 0.7% per year. This population was quite stable, growing about 4.4% over the four year period.

Using the statewide all hospital and all payer data is our best attempt at using a broad, representative, and stable population from which to impute the practice pattern based change in inpatient acuity. It comprises the entire population of Connecticut, and the population growth over the five year period was less than 3%.

This type of approach has been used by other Medicaid programs and by CMS. It maintains prospective payment principles, reduces the need for retrospective adjustments, avoids likely overpayment relative to revenue neutrality, and facilitates budget neutrality for the state. It also develops the methodology for the reserving and distributing funds that could be applied to other policy initiatives in the future — for example shared savings or pay for performance programs. Should monitoring of the acuity levels indicate the need for additional adjustments, they should be made prospectively.

Proposed Approach

Reduce base rates by 5% in anticipation of documentation and coding improvements, and reserve this amount for future consideration. Allow for an estimated 1% annual increase (3% between 2012 and 2015) in case mix index intended to represent real acuity increases.

Derivation of Real Acuity Increase for Documentation and Coding Improvement Analyses

	2008	2009	2010	2011	2012
Total Case Mix Index, All Payers[2]	1.2745	1.2903	1.2957	1.3202	1.324
Annual Increase		101.2%	100.4%	101.9%	100.3%
Average Annual Increase 2-year			100.8%	101.2%	101.1%
Average Annual Increase 3-year				101.2%	100.9%
Average Annual Increase 4-year					101.0%

CMI should be monitored on a quarterly basis. For this purpose, CMI monitoring should focus on a stable Medicaid sub-population, to avoid any bias of changing eligibility groups or increases in covered populations. Following the first year of implementation, if the estimated coding improvement (defined as the observed CMI less a 3% allowance for real acuity increases) is less than 5%, refund the difference up to the full reserve amount. If coding improves more than 5%, a reduction of subsequent base rates should be considered.

It is anticipated that the vast majority of any DCI would occur during the first rate year. Therefore, no further reserves should be withheld in future rate years. The State will continue to monitor CMI for unanticipated increases beyond those anticipated by changes in service patterns. As with any other unanticipated change in state expenditures, hospital revenues may need to be adjusted accordingly.

[2] Annual Report on the FINANCIAL STATUS OF CONNECTICUT'S SHORT TERM ACUTE CARE HOSPITALS for Fiscal Year 2011 and 2012; State of Connecticut Department of Public Health Office of Health Care Access; September 2012 and 2013; page 18 and page 22.

Examples

Example One — Coding Improvement Exactly as Expected	
2015 aggregate CMI	1.08
2015 allowable aggregate CMI	1.03
2015 coding improvement (1.08–1.03)	0.05
Expected year one coding improvement	0.05
Coding improvement above/below expected (No refund or rate reductions)	0.00

Example Two — Coding Improvement Less than Expected	
2015 aggregate CMI	1.05
2015 allowable aggregate CMI	1.03
2015 coding improvement (1.05–1.03)	0.02
Expected year one coding improvement	0.05
Coding improvement above/below expected (Refund 3% to hospitals)	-0.03

Example Three — Coding Improvement Greater than Expected	
2015 aggregate CMI	1.10
2015 allowable aggregate CMI	1.03
2015 coding improvement (1.10–1.03)	0.07
Expected year one coding improvement	0.05
Coding improvement above/below expected (Consider 2% reduction for future years)	0.02

Example Four — No Change in CMI	
2015 aggregate CMI	1.00
2015 allowable aggregate CMI	1.03
2015 coding improvement (1.0–1.03, minimum 0)	0.00
Expected year one coding improvement	0.05
Coding improvement above/below expected (Refund 5% to hospitals)	-0.05